

ABSTRACT

Aflatoxin contamination of broiler feed is a major barrier to sustained agricultural productivity and trade. Aflatoxins are a type of mycotoxins (secondary fungal metabolites) produced by fungi of the genus *Aspergillus* (A), mainly *A. flavus* and *A. parasiticus*, in cereals and grains when conditions are favorable. The aim of this study was to determine the levels of total aflatoxins (AFs) in common commercial broiler feeds among feed manufacturers in Nakuru town, Kenya. Forty compounded broiler feed samples were randomly collected from ten feed mill companies in Nakuru town (ten broiler starter and ten broiler finisher feed samples per company) in two phases. Each collection phase was determined by the frequency of purchase of raw materials by the individual milling companies. The total aflatoxin levels in the feed were analyzed using the ELISA technique in the Mycotoxin Research Laboratory in Egerton University. The data was subjected to SAS procedures using two way analysis of variance. All the feeds collected contained aflatoxins within a range of 1.07- 41.01 µg/kg. The samples (92.5%) contained total aflatoxin levels which exceeded the WHO limits of 5 µg/kg in animal feeds. Of the samples collected, 52.5% exceeded the FDA limits of 20 µg/kg in poultry feeds. To avoid high levels of AFs in broiler feeds, feed manufacturers should test for aflatoxins in the raw materials and avoid the fungal contamination in the broiler feeds at all stages of handling.

Key Words: *ELISA, mycotoxins*